

61042

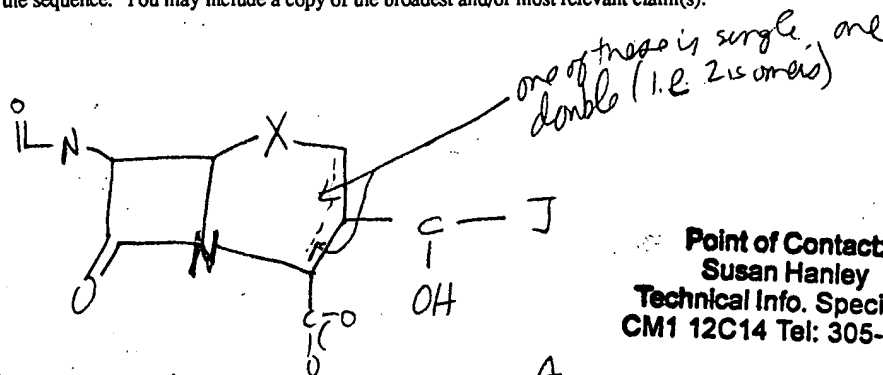
Patent and Trademark Office

SEARCH REQUEST FORM

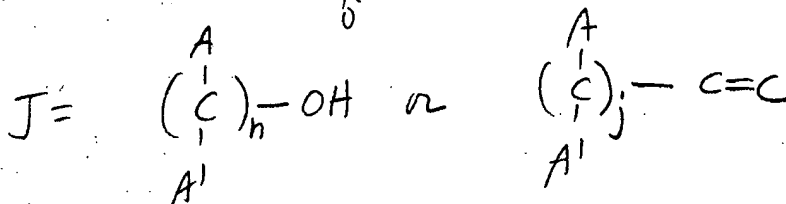
Requestor's Name: BERCH Serial Number: 09/918152
 Date: 2/26/02 Phone: 408 4718 Art Unit: 1624
4D15 4E12

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).



Point of Contact:
 Susan Hanley
 Technical Info. Specialist
 CM1 12C14 Tel: 305-4053



$n = 2-5$

$j = 1-3$

$A, A' = H/CH_3$

$X = s/c/o$

MARY

L1

STAFF USE ONLY

2/28
 Date completed: 3/7
 Searcher: Hanley
 Terminal time: _____
 Elapsed time: _____
 CPU time: _____
 Total time: _____
 Number of Searches: _____
 Number of Databases: _____

Search Site
 _____ STIC
 _____ CM-1
 _____ Pre-S
 Type of Search
 _____ N.A. Sequence
 _____ A.A. Sequence
1 Structure
 _____ Bibliographic

Vendors
 _____ IG Suite
 _____ STN
 _____ Dialog
 _____ APS
 _____ Geninfo
 _____ SDC
 _____ DARC/Questel
 _____ Other

=> d his

(FILE 'HOME' ENTERED AT 16:12:58 ON 07 MAR 2002)

FILE 'HCAPLUS' ENTERED AT 16:13:17 ON 07 MAR 2002

L1 242 S BEST D?/AU
L2 578 S BURTON G?/AU
L3 20 S GASSON B?/AU
L4 1808 S WALKER G?/AU
L5 1 S L1 AND L2 AND L3 AND L4
SELECT RN L5 1

FILE 'REGISTRY' ENTERED AT 16:15:28 ON 07 MAR 2002

L6 20 S E1-20

FILE 'HCAPLUS' ENTERED AT 16:15:52 ON 07 MAR 2002

~~L7 20 S L5 AND L6~~

1 citation with 20 compounds displayed

FILE 'REGISTRY' ENTERED AT 16:16:39 ON 07 MAR 2002

L8 STR
L9 0 S L8
L10 SCREEN 1839 AND 1993 AND 2008
L11 0 S L8 AND L10
L12 ~~0 S L8 AND L10 FUL~~
SAVE L12 BER152P/A

7 compounds from full file search

FILE 'HCAPLUS' ENTERED AT 16:29:17 ON 07 MAR 2002

L13 2 S L12 2 cites for L12 cpds

~~L14 1 S L13 NOT L7~~ 1 cite that is not appl. work

FILE 'CAOLD' ENTERED AT 16:30:15 ON 07 MAR 2002

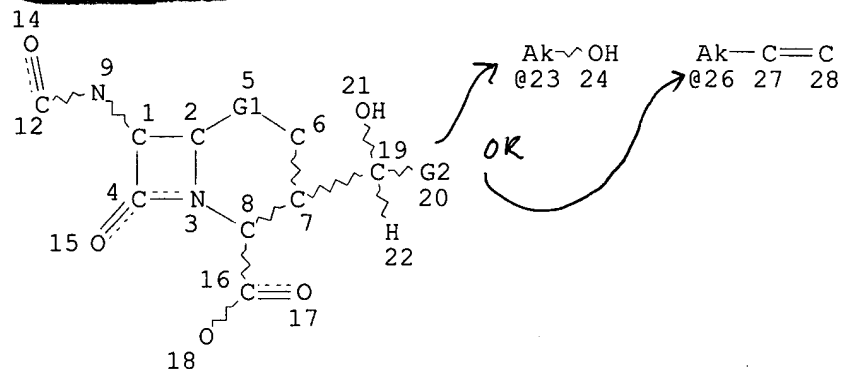
L15 ~~0 S L12~~ no cites

FILE 'BEILSTEIN' ENTERED AT 16:30:34 ON 07 MAR 2002

L16 1 S L8 FUL
L17 0 S L12
L18 ~~1 S L16 AND PRE/FA~~ 1 compound
P066120K PRINT OFFLINE QRD

=> d que l13

L8 **STR**



```

VAR G1=S/C/O
VAR G2=23/26
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 23
CONNECT IS E2 RC AT 26
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 23
GGCAT IS SAT AT 26
DEFAULT ECLEVEL IS LIMITED
    
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GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 24
    
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STEREO ATTRIBUTES: NONE
L10 SCR 1839 AND 1993 AND 2008
L12 7 SEA FILE=REGISTRY SSS FUL L8 AND L10
L13 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L12
    
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BERCH 09/918,152

=> d ibib abs hitstr

L7 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:104661 HCAPLUS
 DOCUMENT NUMBER: 136:151036
 TITLE: Process for the preparation of cephalosporin compounds
 and their intermediates
 INVENTOR(S): **Burton, George; Best, Desmond John**
; Gasson, Brian Charles; Osborne, Neal
Frederick; Walker, Graham
 PATENT ASSIGNEE(S): Pfizer Inc., USA
 SOURCE: Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1178049	A1	20020206	EP 2001-306325	20010723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:			GB 2000-19124	A 20000803

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

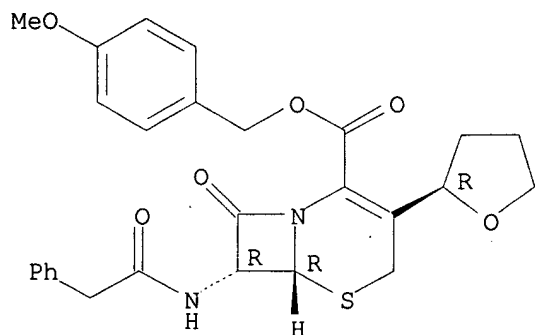
AB A process for prepg. cephalosporins I (R1 = H, OMe, formamido; R2 = acyl; CO2R3 = carboxy group or CO2- or readily removable carboxy protecting group; R4 = H, or up to four substituents from alkyl, alkenyl, alkynyl, alkoxy, halogen, amino, alkyl(acyl)amino, CO2R, CONR2, SO2NR2 (R = H, C1-6 alkyl), aryl, heterocycle, etc.; X = S, SO, SO2, O, CH2; m = 1-2; dotted lines indicate a 2- or 3-cephem system) was accomplished via the cyclization of II. Thus the 3-(R and S)-tetrahydrofuran-2-yl-2-em compds. III were prepd. and the S isomer was converted to the 3-(S)-tetrahydrofuran-2-yl-3-em III in several steps.

IT **141194-60-7P 395660-97-6P 395660-99-8P**
395661-00-4P 395661-04-8P 395661-06-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (process for prepg. cephalosporin compds. and their intermediates)

RN 141194-60-7 HCAPLUS

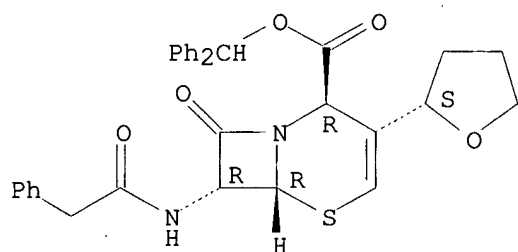
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
 8-oxo-7-[(phenylacetyl)amino]-3-[(2R)-tetrahydro-2-furanyl]-,
 (4-methoxyphenyl)methyl ester, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



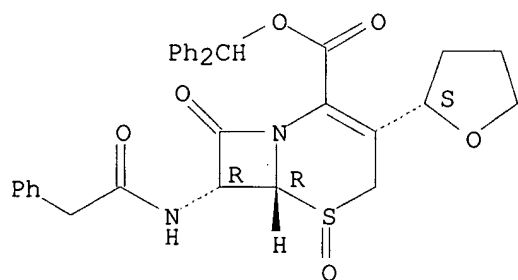
RN 395660-97-6 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



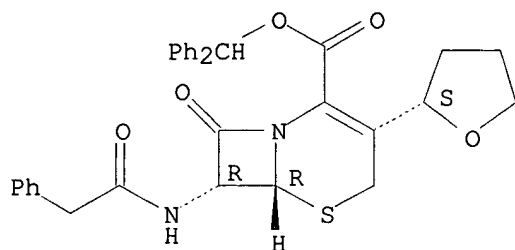
RN 395660-99-8 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



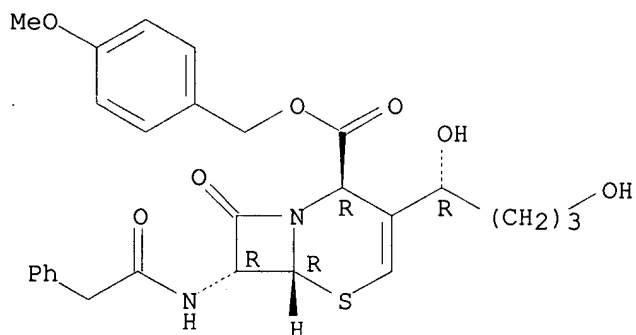
RN 395661-00-4 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



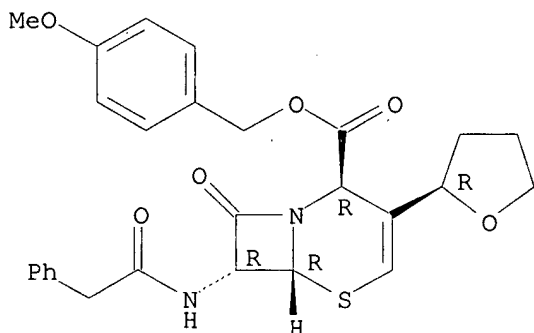
RN 395661-04-8 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



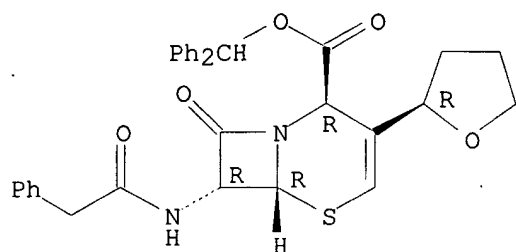
RN 395661-06-0 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



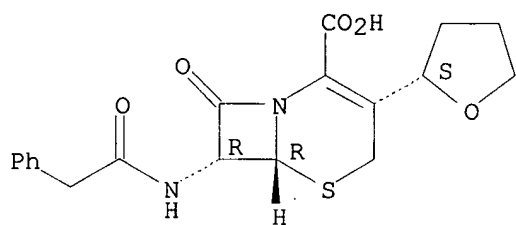
IT 395660-98-7P 395661-01-5P 395661-05-9P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
(Preparation)
(process for prepg. cephalosporin compds. and their intermediates)
RN 395660-98-7 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 395661-01-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

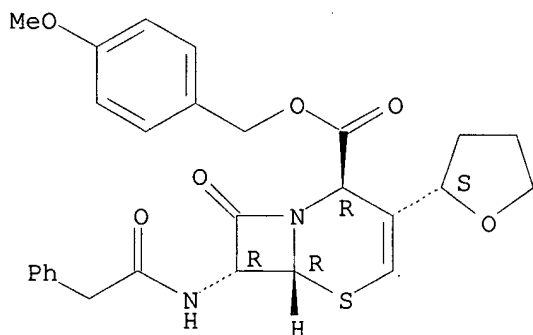
Absolute stereochemistry.



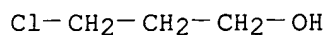
● Na

RN 395661-05-9 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

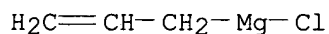


IT 627-30-5, 3-Chloropropan-1-ol 2622-05-1, Allylmagnesium
chloride 39914-26-6 72824-04-5, 2-Allyl-4,4,5,5-
tetramethyl-1,3,2-dioxaborolane 171229-07-5, Dimethyl
(R,R)-2-allyl-1,3,2-dioxaborolane-4,5-dicarboxylate 395661-02-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for prepg. cephalosporin compds. and their intermediates)
RN 627-30-5 HCAPLUS
CN 1-Propanol, 3-chloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 2622-05-1 HCAPLUS

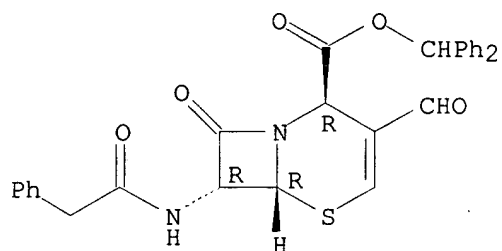
CN Magnesium, chloro-2-propenyl- (9CI) (CA INDEX NAME)



RN 39914-26-6 HCAPLUS

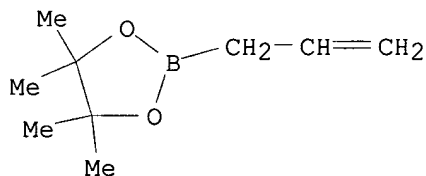
CN 5-Thia-1-azabicyclo[4.2.0]oct-3-ene-2-carboxylic acid,
3-formyl-8-oxo-7-[(phenylacetyl)amino]-, diphenylmethyl ester, (2R,6R,7R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 72824-04-5 HCAPLUS

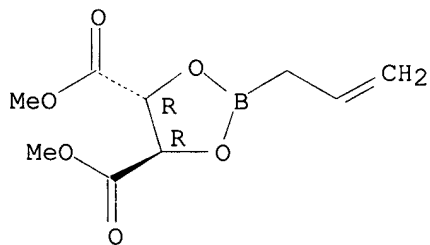
CN 1,3,2-Dioxaborolane, 4,4,5,5-tetramethyl-2-(2-propenyl)- (9CI) (CA INDEX NAME)



RN 171229-07-5 HCAPLUS

CN 1,3,2-Dioxaborolane-4,5-dicarboxylic acid, 2-(2-propenyl)-, dimethyl ester, (4R,5R)- (9CI) (CA INDEX NAME)

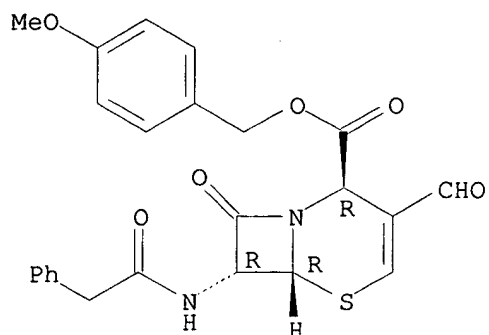
Absolute stereochemistry.



RN 395661-02-6 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



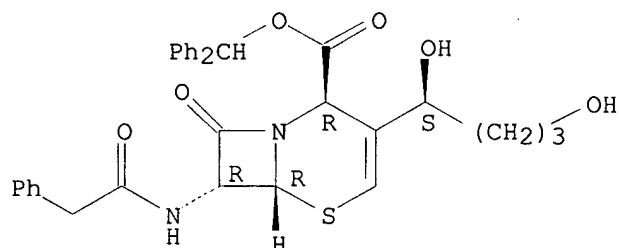
IT 395660-95-4P 395660-96-5P 395661-03-7P
395661-07-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(process for prepg. cephalosporin compds. and their intermediates)

RN 395660-95-4 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

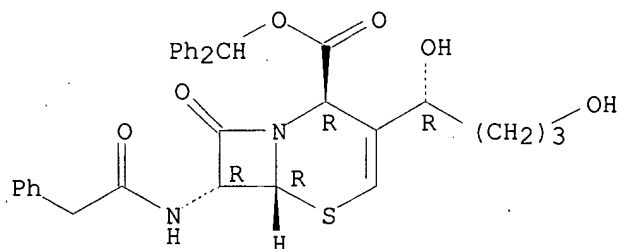
Absolute stereochemistry.



RN 395660-96-5 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

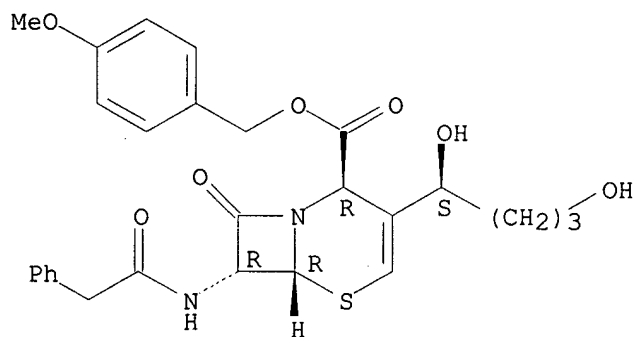
Absolute stereochemistry.



RN 395661-03-7 HCAPLUS

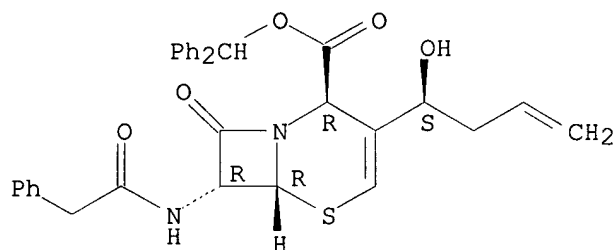
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



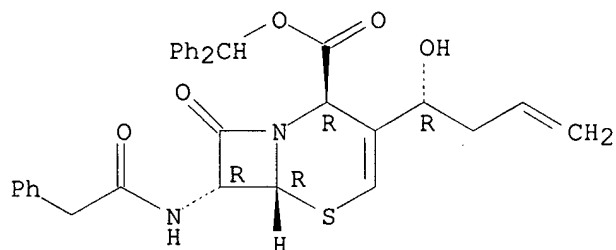
RN 395661-07-1 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



IT 395661-08-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for prepg. cephalosporin compds. and their intermediates)
RN 395661-08-2 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

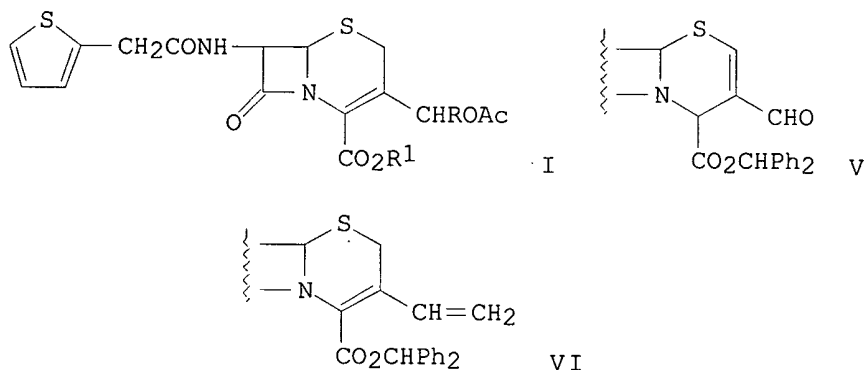
Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr

L14 ANSWER 1 OF 1 HCAPLUS .COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1981:407185 HCAPLUS
 DOCUMENT NUMBER: 95:7185
 TITLE: Some novel C(3)-substituted cephalothin derivatives
 AUTHOR(S): Valcavi, Umberto; Brandt, Alberto; Corsi, G. Bruno; Minoja, Fabrizio; Pascucci, Giorgio
 CORPORATE SOURCE: Ist. Chim. Org., Univ. Milano, Milan, 20100, Italy
 SOURCE: Gazz. Chim. Ital. (1980), 110(9-10), 519-22
 CODEN: GCITA9; ISSN: 0016-5603
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



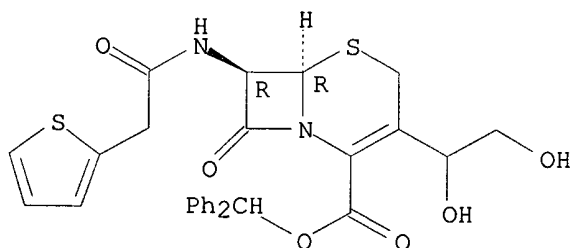
AB Cephalothin derivs. I [R, R1 = CH2OAc, H; CH:CH2, CHPh2 (II); C.tplbond.CH, CH2OMe (III); C.tplbond.CMe, CHPh2 (IV), etc.] were prepd. from V or VI. It was impossible to obtain II, III, and IV as free acids owing to a very fast acetate group displacement.

IT **77725-26-9P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction with acetyl chloride)

RN 77725-26-9 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-(1,2-dihydroxyethyl)-8-oxo-7-[(2-thienylacetyl)amino]-, diphenylmethyl ester, [6R-(6.alpha.,7.beta.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d all

L18 ANSWER 1 OF 1 COPYRIGHT 2002 BEILSTEIN/CDS MDLI

Beilstein Reg. No. (BRN): 6552397 Beilstein
Molecular Formula (MF): C28 H26 N2 O6 S2
Autonom Name (AUN): 3-(1,2-dihydroxy-ethyl)-8-oxo-7-(2-thiophen-2-yl-acetylamino)-5-thia-1-aza-bicyclo<4.2.0>oct-2-ene-2-carboxylic acid benzhydryl ester
Beilstein Reference (SO): 6-27
General Comments (NTE): Stereo compound
Formula Weight (FW): 550.64
Lawson Number (LN): 31715; 19524; 5520

Ring System Data:

Number of Rings (CNR): 5
Ring Systems (CNRS): 4
Diff. Ring Systems (CNDRS): 3
Ring Heteros (CNRH): 3
Acyclic Heteros (CNAH): 7

Beilstein Ring Index (BRIX)	Ring System Formula (RF)	BRIX Count
8.2.4-2.26-1.2	C6NS	1
6.1.0-0.0-3.1	C6	2
5.1.0-1.3-2.2	C4S	1

I will deliver this to
you as soon as I
receive it from
Beilstein

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Preparation:

PRE

Start: BRN=6550775 benzhydryl 7-(2-thienylacetamido)-3-vinyl-3-cephem-4-carboxylate

Reag: OsO4, KClO3

Solv: tetrahydrofuran, H2O

Reference(s):

1. Valcavi, Umberto; Brandt, Alberto; Corsi, G. Bruno; Minoja, Fabrizio; Pascucci, Giorgio, Gazz.Chim.Ital., 110 <1980> 9/10, 519-522, LA: EN, CODEN: GCITA9

Note(s):

2. Yield given